

We Claim:

1. An isolated nucleic acid molecule encoding a B lymphocyte activation antigen ("BLAA"), wherein said molecule comprises a nucleotide sequence encoding a polypeptide having a sequence that is at least 95% identical to SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6, or the complement of said nucleic acid molecule.
2. The nucleic acid molecule of claim 1, wherein said molecule hybridizes under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides of SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5, or the complement of said nucleic acid molecule.
3. The nucleic acid molecule of claim 1, wherein said nucleotide sequence encodes a human BLAA.
4. The nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6.
5. The nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6, or the complement of said nucleic acid molecule.
6. An oligonucleotide of less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, or SEQ ID NO: 12, or a complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.
8. The vector of claim 7, wherein said vector is an expression vector.
9. The vector of claim 7, further comprising a regulatory element operably linked to said nucleic acid molecule.

10. An isolated polypeptide at least 80% identical to a polypeptide selected from the group consisting of:
- (a) a polypeptide comprising an amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6;
 - (b) a fragment of a polypeptide comprising an amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6, wherein the fragment comprises at least 6 contiguous amino acids of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6;
 - (c) a derivative of a polypeptide comprising an amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6;
 - (d) an analog of a polypeptide comprising an amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6;
 - (e) a homolog of a polypeptide comprising an amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6;
 - (f) a naturally occurring allelic variant of a polypeptide comprising an amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 4, or SEQ ID NO: 6, wherein the polypeptide is encoded by a nucleic acid molecule that hybridizes to a nucleic acid molecule of SEQ ID NO: 1, SEQ ID NO: 3, or SEQ ID NO: 5 under stringent conditions.
11. The polypeptide of claim 10, wherein the polypeptide, or fragment thereof, has human B lymphocyte activation antigen B7-like activity.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A method of producing the polypeptide of claim 10, said method comprising the step of culturing a host cell under conditions in which the nucleic acid molecule is expressed.

14. A method of detecting the presence of the polypeptide of claim 10 in a sample, the method comprising contacting the sample with a compound that selectively binds to the polypeptide of claim 10 and determining whether the compound bound to the polypeptide of claim 10 is present in the sample.
15. A method of detecting the presence of the nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule of claim 1 and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.
16. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.
17. A method of treating or preventing an immune response-associated disorder, said method comprising administering, to a subject, in which such treatment or prevention is desired, an effective amount of a therapeutic selected from the group consisting of:
- (a) the nucleic acid of claim 1;
 - (b) the polypeptide of claim 10; and
 - (c) the antibody of claim 12,
- wherein said therapeutic is administered in an amount sufficient to treat said immune response-associated disorder in said subject.
18. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
- (a) the nucleic acid of claim 1;
 - (b) the polypeptide of claim 10; and

- (c) the antibody of claim 12,
and a pharmaceutically acceptable carrier.
19. A kit comprising, in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 18.
20. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a human disease, the disease comprising an immune response-associated disorder, wherein said therapeutic is selected from the group consisting of:
- (a) the nucleic acid of claim 1;
(b) the polypeptide of claim 19; and
(c) the antibody of claim 12.
21. A method for screening for a modulator of activity or of latency or predisposition to an immune response-associated disorder, the method comprising:
- (a) administering a test compound to a test animal at increased risk for an immune response-associated disorder, wherein said test animal recombinantly expresses a BLAA polypeptide;
(b) measuring expression of the activity of said polypeptide in said test animal;
(c) measuring the activity of said polypeptide in a control animal that recombinantly expresses said polypeptide and is not at increased risk for an immune response-associated disorder; and
(d) comparing expression of said polypeptide in said test animal and said control animal, wherein a change in the activity of said polypeptide in said test animal relative to said control animal indicates that the test compound is a modulator of activity or latency or predisposition to an immune response-associated disorder.

22. The method of claim ~~21~~, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native promoter of said transgene.
23. A method for determining the presence of or predisposition to a disease associated with altered levels of a BLAA polypeptide of claim ~~10~~, the method comprising:
- (a) measuring the amount of the polypeptide in a sample from a mammalian subject; and
 - (b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample.
- wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates a disease condition.
24. A method for determining the presence of or predisposition to a disease associated with altered levels of a BLAA nucleic acid of claim ~~11~~, the method comprising:
- (a) measuring the amount of the nucleic acid in a sample from a mammalian subject; and
 - (b) comparing the amount of the nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,
- wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates a disease condition.
25. A method of treating a pathological state in a mammal, the method comprising administering to the subject a polypeptide of claim ~~10~~ in an amount to alleviate the pathological state.
26. A method of treating a pathological state in a mammal, the method comprising administering to a subject, the antibody of claim ~~12~~ in an amount sufficient to alleviate the pathological state.